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Tissue paper and tissue products - Part 12: Determination of tensile strength of perforated lines - Calculation of perforation efficiency (ISO 12625 -12:2010)

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English Version

**Tissue paper and tissue products - Part 12: Determination of
tensile strength of perforated lines - Calculation of perforation
efficiency (ISO 12625-12:2010)**

Papier tissue et produits tissues - Partie 12: Détermination
de la résistance à la rupture par traction des lignes de
prédécoupe - Calcul de l'efficacité des perforations (ISO
12625-12:2010)

Tissue-Papier und Tissue-Produkte - Teil 12: Bestimmung
der breitenbezogenen Bruchkraft an Perforationen -
Berechnung der Perforations-Effizienz (ISO 12625-
12:2010)

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Foreword

This document (EN ISO 12625-12:2010) has been prepared by Technical Committee CEN/TC 172 “Pulp, paper and board”, the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 6 “Paper, board and pulps”.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2010, and conflicting national standards shall be withdrawn at the latest by July 2010.

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INTERNATIONAL STANDARD

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Tissue paper and tissue products —

Part 12:

Determination of tensile strength of perforated lines — Calculation of perforation efficiency

Papier tissue et produits tissues —

*Partie 12: Détermination de la résistance à la rupture par traction
des lignes de prédécoupe — Calcul de l'efficacité des perforations*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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ISO 12625-12 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board*, in collaboration with Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 12625 consists of the following parts, under the general title *Tissue paper and tissue products*:

- *Part 1: General principles for the use of terms*
- *Part 3: Determination of thickness, bulking thickness and apparent bulk density*
- *Part 4: Determination of tensile strength, stretch at break and tensile energy absorption*
- *Part 5: Determination of wet tensile strength*
- *Part 6: Determination of grammage*
- *Part 7: Determination of optical properties*
- *Part 8: Water-absorption time and water-absorption capacity, basket-immersion test method*
- *Part 9: Determination of ball burst strength*
- *Part 12: Determination of tensile strength of perforated lines — Calculation of perforation efficiency*

The following part is under preparation:

- *Part 13: Determination of the spectral reflectance factor (brightness) at the wavelength R 457 nm with and without UV stimulus and opacity*

Introduction

Tissue papers such as toilet paper and kitchen towel are often pre-cut. They are used after separation of two consecutive sheets.

It is important to know the efficiency of the pre-cut perforations.

The perforation strength should be enough to ensure the product cohesion, but not too high, so that sheets can be easily separated. Depending on the type of tissue product, forces can be applied perpendicular to the perforation lines, or in the direction of the perforation lines.

This part of ISO 12625 has been prepared by harmonizing those standards applicable to tissue paper and tissue products that are currently in use. It specifies a procedure to determine perforation efficiency based on the method described in ISO 12625-4 for the determination of the tensile strength of tissue paper and tissue products.

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